

In the Specification:

Please amend paragraph 1 on page 1 as follows:

The invention relates to an X-ray imaging method, comprising the forming of a set of a plurality of two-dimensional X-Ray projection images of a medical or veterinary object to be examined through a scanning rotation by an X-Ray source viz à viz said object, which X-Ray images are acquired at respective predetermined time instants with respect to a functionality process produced by said object, and from said set of X-Ray projection images reconstructing by back-projection a three-dimensional volume image of said object ~~as being recited in the preamble of Claim 1.~~

Please amend paragraph 4 on page 1 as follows:

Now therefore, according to one of its aspects, ~~the invention is characterized according to the characterizing part of Claim 1~~ the invention relates to an X-ray imaging method comprising the steps of forming a set of a plurality of two-dimensional X-Ray projection images of a medical or veterinary object to be examined through a scanning rotation by an X-Ray source viz à viz said object, which X-Ray images are acquired at respective predetermined time instants with respect to a functionality process produced by said object; reconstructing by back-projection a three-dimensional volume image of said object from the set of X-Ray projection images, and deriving an appropriate motion correction for the respective two-dimensional images as based on a motion vector field, and subsequently from the various corrected two-dimensional images reconstructing the intended three-dimensional volume.

Please amend paragraph 5 on page 2 as follows:

The invention also relates to a three-dimensional X-Ray apparatus being arranged for implementing a method ~~as claimed in Claim 1~~ comprising the steps of forming a set of a plurality of two-dimensional X-Ray projection images of a medical or veterinary object to be examined through a scanning rotation by an X-Ray source viz à viz said object, which X-Ray images are acquired at respective predetermined time instants with respect to a functionality process produced by said object; reconstructing by back-projection a three-dimensional volume image of said object from the set of X-Ray projection images, and deriving an appropriate motion correction for the respective two-dimensional images as based on a motion vector field, and subsequently from the various corrected two-dimensional images reconstructing the intended three-dimensional volume. Further advantageous aspects of the invention are recited in dependent Claims.

Please amend paragraph 11 on pages 2 to 3 as follows:

Now, the imaging apparatus 1 includes a C-arm 10 that is mounted on a partially shown stand 11. The C-arm can be rotated over an angle such as 180° around its center in the direction of double arrow a 20 through a motor drive not shown. The C-arm accommodates an X-Ray source 12 and an X-Ray image pick-up 13, that are aligned relative to each other in such a manner that an X-Ray image can be formed of a certain volume around the above center. ~~These plural~~ This plurality of X-Ray images show the volume under examination generated by respective different angular orientations of the image forming system 12, 13, that are in part shown by dashed lines. The pick-up device may be a series arrangement of an X-Ray image intensifier that feeds a television chain, while the signals furthermore are A/D converted (14) and stored (15), so that the complete examination yields a series of images (...D_{i-1}, D_i, D_{i+1}, D_{i+2} ...). These X-Ray images can themselves be processed by known reconstruction methods (16) to obtain a three-dimensional volume for examination. This volume or various projections

Appl. No. 10/549,267
Amdt. Dated February 28, 2007
Reply to Office Action of November 30, 2006

therethrough can be displayed on monitor 18. The various subsystems of the imaging apparatus are controlled by controller 17. Another applicable apparatus could be based on multi-slice CT-scanning.